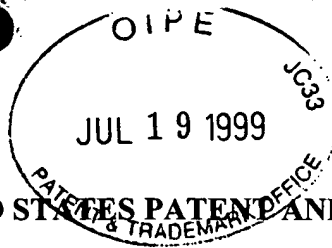


MASIMO.007C3



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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

JUL 31 1999
TC 3700 MAIL ROOM

Applicant : M. Diab et al.
Appl. No. : 09/111,604
Filed : July 7, 1998
For : SIGNAL PROCESSING
APPARATUS
Examiner : E. Winakur

) Group Art Unit 3736

) I hereby certify that this correspondence and all
) marked attachments are being deposited with
) the United States Postal Service as first-class
) mail in an envelope addressed to: Assistant
) Commissioner for Patents, Washington, D.C.
) 20231, on

July 14, 1999

(Date)

Stephen C. Jensen, Reg. No. 35,556

AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Office Action mailed May 14, 1999, please amend the claim as follows:

39. (Amended) A method for measuring saturation of a blood constituent in a patient comprising the steps of:

irradiating said patient with electromagnetic radiation of at least three discrete, different wavelengths;

sensing an intensity of said radiation for each of said [wavelength] wavelengths after it passes through a portion of said patient to produce first, second, and third intensity signals;

representing each of said intensity signals as a function of concentration, the wavelength corresponding to the intensity signal, and a time-variable motion term corresponding to motion noise, said motion terms being proportional to one another for each of said intensity signals; and

solving the functions to obtain a value for said saturation, wherein each of said functions includes a plurality of coefficients related to the wavelengths, the coefficients of said third function being determined based upon the